# How to Make Skin Cleansers

When talking about skin cleansers, most people think about bar products, either based on soap or synthetic detergents (syndets). Now, there's a large variety of other types of skin cleansing products that represent other types of usage and vary from market to market depending on patterns of cleansing habits or makeup usage.

When classifying skin cleansers, you have to consider many factors. Including the physical nature, chemistry, functionality, and the various soils on the skin that need to be cleansed. Such as sebum, residue from moisturizers, or waterproof makeup.

Table 1 gives a short overview of the various types of skin cleansers.

### Classifications of Skin Cleansers

Cleansers are ranked based on their chemistry and functionality. On the top (oils) are cleansers that are the gentlest to skin, have emollient properties and are oleophilic. At the low end (bar soaps) are cleansers that show highest cleansing activity, have foaming and astringent properties and are hydrophilic.

1. Oils (mineral oil, natural oils)
2. Water-in-oil lotions / creams
3. Oil-in-water lotions / creams (non-foaming)
4. Oil-in-water lotions / creams (mild-foaming)
5. Fatted bar soaps
6. Alcohol-water solutions
7. Bar soaps, liquid detergents, scrubs

Table 1

## Non-drying skin cleansers

Oils (water-free, oily cleansers) mineral oils, petroleum jelly, vegetable oils, and esters are typically used as non-drying skin cleansers. They're used for removing waterproof makeup and oil-soluble soils, such as sebum and residues from moisturizers. The disadvantage of these cleansers is that they are not readily rinsible. Nowadays, more sophisticated products contain esters or oil-soluble surfactants to make the product less greasy, more rinsible, and more pleasant. Also, oil-cleansers are often formulated as thicker solutions (gels), which are easier to spread and can be tissued off.

## Water-in-Oil Emulsions: Cold Creams

W/O-emulsion creams and lotion formulas are typified by cold cream. Cold creams leave behind a moisturizing film but are generally not rinsible and are considered greasy. Additionally, they need to be tissued off the skin. However, cold creams can now be formulated to be more rinsible by adding specific, non-ionic emulsifiers

There is a large variety of skin cleansing products that represent other types of usage.

| Typical Formula of an O/W Lotion | |
|---|---|
| Phase A | WGT. % |
| -Water | 56.2% |
| - Xanthan Gum | 0.4% |
| - Coco Betaine | 25% |
| - EDTA | 0.4% |
| - Paraben-DU | 0.6% |
| Phase B | |
| - Sorbitan Stearate | 3% |
| - Ceteareth-20 | 3% |
| - Cetyl Alcohol | 2% |
| - PEG-7 Glyceryl Cocoate | 3% |
| - Sulfosuccinate | 3% |
| - Stearic Acid | 3% |
| Phase C | |
| - Fragrance | 0.4% |

Typical Formula of a W/O Cream

| | |
|---|---|
| - Ester Emollient (decyl oleate) | 12.5% |
| - White Beeswax | 12% |
| - Mineral Oil/Vegetable Oil | 56% |
| - Borax | 0.5% |
| - Water | 19% |

Table 4

Typical Formula of an Astringent

| | |
|---|---|
| - Water | 50.9% |
| - Ethyl Alcohol | 40% |
| - Glycerin | 4% |
| - Sorbitol (70%) | 2% |
| - Menthol | 0.1% |
| - Witch Hazel Extract | 3% |
| -Fragrance / Color | q.s. |

Dissolve menthol in alcohol. Add fragrance, water and other ingredients. Blend at room temperature.

Table 5

## Oil-in-Water Emulsions: Non-Foaming

Non-Foaming O/W emulsions with greater than 50% water phase are typically referred to as cleansing milk. The primary cleanser is a surfactant (coco betaine) supplemented by a non-ionic or anionic emulsifier. Cleansing milk differs from moisturizing lotions because it generally has less water, more surfactants, and higher levels of a secondary W/O- emulsifier (sorbitan stearate).

## Astringents and Toners

Astringents and toners have a specific formulation. They are hydroalcoholic solutions with an alcohol content of 20-70%. They often contain an emollient or humectant to decrease the defatting of the skin. Toners are generally used on oily skin and/or to make the skin clean in preparation for the use of a moisturizer.

Scrubs and Exfoliating Cream Scrubs contain particulate materials to remove loose flakes of the horny layer of the skin and to polish the skin. There are a large variety of such particles, which are typically from natural sources (crushed walnut shells, seeds from various plants) but can also be synthetic (polyethylene beads). The newest, most sophisticated exfoliant are tiny beads made of pure Jojoba. They are less harsh, non-occlusive, and non-comedogenic. Typically, exfoliant particles are incorporated into O/W emulsions (if non-foaming) or gentle pastes (if foaming).